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ABSTRACT

Research is currently underway at the Malmo School of Education dealing with selected aspects of educational objectives in compulsory school at the "gymnasium" and post-"gymnasium" levels. The main thesis is that these schools prepare students with knowledge and specific skills but fail to equip the student with more general skills and attitudes which he will need in a rapidly changing society. Three aspects of this problem are presently being conducted as research projects at the Malmo School of Education: (1) social development and training in the comprehensive school; (2) creativity; and, (3) student democracy--co-planning at different educational levels. A brief theoretical base for the research is given as well as research methods used. The reader is referred to other documents for more detailed summaries and conclusions of this research. (SB)

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COOPERATION, INDEPENDENCE, MENTAL AGILITY: SOME ASPECTS OF PREPAREDNESS FOR THE FUTURE AS AN EDUCATIONAL OBJECTIVE

Åke Bjerstedt

Most people agree that it is important to give students an education which will equip them for the future and that mere mastery of a given mass of knowledge is then not enough. They should be prepared to cooperate productively and without unnecessary friction, to take a stand with critical independence on a growing flood of more or less accurate information and propaganda and develop a mental agility capable of meeting new problems in an unprejudiced and creative frame of mind. So far rather little is known of the best ways to realize such goals, and our opportunities for objectively measuring how far these objectives are reached are minimal. Research work on selected aspects of this problem area is at present underway at the Malmö School of Education; some projects associated with it are presented briefly in this report.

INTRODUCTION

A point often made in discussions of educational objectives for both the compulsory school and the "gymnasium" and post-"gymnasium" levels is that it is not enough to aim at giving the students knowledge and specific skills, since these soon get out of date. More general skills and attitudes, which make the individual suited for life in a rapidly changing society, should also occupy an important position. Thus it is a question of giving students an education which will better equip them for the future than mere mastery of a given mass of knowledge can. They should be prepared to cooperate productively and without unnecessary friction, to take a stand with critical independence on a growing flood of more of less accurate information and propaganda and develop a mental agility capable of meeting new problems in an unprejudiced and creative frame of mind.

Most people agree that this type of educational objective is important, but so far very little is known of the best ways to realize such goals, and our opportunities for objectively measuring how far there objectives are reached are minimal. This is a complex and difficult research area of great potential significance for our attempts to promote a positive development of the interplay between the individual and society.

Research work concentrating on specific aspects of this problem area is at present underway at the Malmö School of Education. Three projects associated with it are presented briefly in the present report. The description of each project gives information about the aims of the project and its general plan, and also gives glimpses from current research tasks and references to reports already available.

I. SOCIAL DEVELOPMENT AND TRAINING IN THE COMPREHENSIVE SCHOOL

Main Aims

To construct, adapt and try out measuring methods, which would make us better able to chart selected aspects of the social development of the students and which could be used in assessing attempts to promote this development ("goal area a");

to chart, with the help of these methods, certain features of age development and to study some relations between these variables and personality characteristics ("goal area b");

to explore selectively different possibilities of using educational influence to promote development in desired directions ("goal area c").

A general comprehensive aim is to establish a more reliable basis for the evaluation of various attempts to further the school's goals in social training (by adding to our basic knowledge, by improving our measuring instruments, and by studying certain effects of educational influence).

Areas of Activity

The field of social development and social training in schools is extensive and in part only vaguely defined. The project has concentrated on three relatively different aspects (variable fields), namely:

(a) "ability to co-operate" (adequate internal group communication and techniques for handling conflicts; "Variable Field C");

(b) "optimal resistance to authority and propaganda" (ability to make independent decisions, resistance to "non-objective" attempts to influence; "Variable Field R");

(c) "world citizen responsibility" (understanding for and a feeling of responsibility for developments in other countries, reduced inclination to disparage unthinkingly anything unusual etc; "Variable Field W").

The general strategy of the project has been to work on parallel lines with all three variable fields (with a research assistant in charge of each one) and then to start with the construction and evaluation of measuring instruments. From some points of view, this could be said, to have resulted in three, partially independent, sub-projects.

If we cross-tabulate the three general goal areas (a, b, c) described above with the three chosen variable fields (C, R, W), we get a problem table with nine task-cells as follows:

	General Goal Area:		
Variable Field:	a Instruments	b Development	c Influence
C	C-a	C-b	C-c
R	R-a	R-b	R-c
W	W-a	W-b	W-c

Obviously each one of these problems areas could in itself occupy a research team for a very long time, since our knowledge is in each case sadly incomplete at present. It is perhaps necessary, therefore, to warn against exaggerated optimism over the possibility of any research work quickly reaching definite results and recommendations. When it comes to applied research with elements of what is sometimes called directed basic research in a complex and almost untouched field, the ambition of an individual project can naturally be no more than to gather a few straws for the slowly accumulating stack of international knowledge. The present project can, therefore, aspire to no more than dealing with a limited number of selected aspects. The work will be most extensive within goal area - column a, while we at present only count on carrying out limited explorations within goal area - column c.

Here follows a brief account of some of the tasks we have tackled, some of which are concluded and some still underway.

"Social Training" - an Empiric-Semantic Survey

A natural starting point has been to try to find out what school personnel (teachers, school leaders, further education consultants, tutors, methodics lecturers etc.) understand by the term "social training", and which methods they think should be used in schools to implement the demand for such education. An opinion survey was carried out, by means of a questionnaire, among about 270 people. On the basis of the results of the opinion survey and also of a curriculum analysis, the concept "social training" has been discussed in some detail (Yebio, 1969).

Variable Field C: "Ability to Co-operate"

Work on the section of the project called "ability to co-operate" has so far been carried on partly in the form of co-operation with two other departmental projects. These are a project concerning teacher-student interplay and a project concerning "student-democracy - co-planning". The latter can to some extent be said to be a "daughter-project" to the one described here: one particularly topical spects of it has been extracted and made the object of more detailed analysis (cf. section III below).

The construction and testing of various methods of conducting systematic classroom observations and interaction analyses have formed an important part of the study of "ability to co-operate". A number of lessons with group-work have been recorded on video-tape; the recorded material has then been subjected to various forms of analysis. An observation schedule intended to measure each student's co-operation and independence in the group-work situation has been drawn up. All the video-

recorded students have then been assessed with the help of the observation system. The video-recorder has been linked to an automatic timer, which produces a continual interchange of tape observations (30 secs.) and short intervals for registration (10 secs., during which the tape is stationary). Some of the material has been double-coded for use in studies of coder agreement. We are now in the process of conducting further studies on the reliability and validity of the method. In general, this part of our work consists mainly of method construction and method testing (with the use of video-tape techniques as an instrument for the detailed study of interplay). The matrial is not only interesting from the point of view of methods, however. It should also provide the opportunity of studying special hypotheses on the relation between test data and group behavior. (See further Lundquist, 1969.) - Separately certain other methods have been explored, e.g. data collection methods of a more projective character.

While this work is primarily related to goal area a (see above), another part of the work on Variable Field C has initiated explorations which are connected with goal area c. About fifty teachers particularly interested in methods of social training have been interviewed about the advantages and disadvantages of such methods from a socio-psychological and general educational point of view. Group interviews were also conducted with representatives for the students of these same teachers and sociometric tests were carried out in the classes involved. The data from this phase of the work should prove useful as a source of hypotheses. They have also been one of the starting-points for the construction of a questionnaire to students concerning their experiences of and their attitudes towards various ways of arranging group work in school. Student questionnaire data have been collected from grade levels 2, 5 and 8. The analysis is planned to give information of certain characteristics of age development (goal area b) and - together with other data - some background for recommendations on methods.

Explorative and preliminary studies on training programs have recently been started, i.a. with a focus on overcoming sex barriers. For these studies some special assessment methods are developed (e.g. tests for the study of sex-role perception) as well as brief instruction programs involving outlines for role-playing and discussions (with a view to promote cooperation and break down sex prejudices).

Variable Field R: "Optimal Resistance to Authority and Propaganda"

An important aim here is to study the ability of the students to make independent decisions and to resist "non-objective" attempts to influence them. This involves the construction and testing of measuring instruments which can differentiate between individuals. Part R of the project has now obtained extensive test data, collected from various age groups within the comprehensive school. The material includes:

(a) Methods intended to give information as to how far the students choose, pass on or are influenceed by "non-objective" information;
(b) perception experiments intended to give information about how "non-objective" influence is experienced under group pressure;
(c) ratings of students by their fellow-students and by their teachers;
(d) various personality tests, including variables such as anxiety, rigidity, authoritarianism, dogmatism, self-evaluation and field dependence.

One of the methods used in group (a) aims, for example, at studying the connection between the type of argument accepted by the student and the type of argument the student could imagine using himself if he were to pass on the communication. Thus the student is placed in two situations where it is necessary for him to make a choice. In both situations the information is given in exactly the same form.

The technique used in (b) is that the students taking part in a perception experiment are subjected to influence through group pressure. After the experiment the students are interviewed and asked how they reacted to the experiment and the group pressure, and why they allowed themselves to be influenced. The interview has been constructed in accordance with a theory on three different types of acceptance of social influence.

An experiment in assessing different types of dependent-independent behavior by means of a teacher-rating schedule has been raported by Jernryd, 1970.

The current analyses of these data are aimed at (a) examination of the technical testing qualities of various instruments, (b) special instrument comparisons, (c) studies of factor structures, and (d) analyses of variations between the sexes and between different age groups. In addition, comparisons are made in some instances of group pressures from different sources of influense. Thus, this part of the work carried out within Variable Field R is mainly related to goal areas a and b.

Related to goal area c, explorative interviews with teachers have been started with the aim of obtaining preliminary points of view on how to train authority and propaganda resistance in school. We hope to get from the interview data some guide-lines for further experimentation.

Variable Field W: "World Citizen Responsibility"

Also within Variable Field W construction of instruments has been an important task, of course. A relatively comprehensive test battery has been put together (including both foreign tests adapted to Swedish and newly constructed instruments) and administrered to about 600 students in the comprehensive school. The tests were partly chosen in relation to various goal areas described in the Swedish curriculum and connected to the W field. One group of tests deal with attitudes towards foreign nationalities and ethnic groups; another group of instruments assess attitudes towards international relations and international cooperation; in addition, knowledge-related tests and various measurement devices for personality-related variables were included. Many different types of instruments are represented: from direct and "open" instruments on attitudes and cognitions to indirect, projective-type devices. A series of factor-analytic examinations of the test battery has been conducted and reported. The test battery is presented in Yebio, 1970 b; the results of the factor analyses in Yebio, 1970 a (see also Yebio, 1970 c).

Some of these tests are useful for student analyses from the point of view of age development and from the point of view of "instructional prerequisites"; for instance, to obtain answers to such questions as: What knowledge and preconceptions about international relations and foreign peoples are to be found at different age levels in the comprehensive school? What kind of attitudes occur? To what extent are there tendencies towards undifferentiated, negative preconceptions about everything foreign? One of the objects of the survey is to make it easier for us to associate to the students' world of ideas and generally to find out on which points education and positive influence seem most essential.

Other material gathered includes (a) a follow-up of SECO's (Swedish Students' Central Organization) campaign for teaching in international problems (about 600 students) and (b) a teacher analysis (opinion survey).

Work within the W section has also included a survey aimed at making an inventory of potentially interesting study-material within the framework of teaching "world citizen responsibility". Our intention here has been to clear the ground a little for an assessment of where and to what extent newly-constructed material is needed. But the list should also prove useful to teachers who want to localize various types of existing material quickly. (See further Christoffersson & Gustafsson, 1971 in the list of references below.)

Explorative and preliminary experimentation with brief instructional programs, i.a. on human rights, has recently been started. Evaluation and improvement of selected teaching aids lies also within the interest area of the project. For example, Louis Malle's well-known film "Calcutta" has been shown in full to groups of Swedish teachers, student-teachers and students, whereby the project has tried, by means of a questionnaire, to obtain guide-lines on how to cut it down and how to follow it up when used for instruction purposes in school (within a program on problems in underdeveloped and overpopulated areas).

Thus the work within Section W has to some extent concerned all the goal areas mentioned above.

Conferences, Summary Reports

In connection with conferences, somewhat more detailed summaries of the project have been issued, to which those interested may be referred (Bjerstedt, 1969b and 1970 b). Two working conferences on the theme "Education for international understanding" have been arranged in co-operation with the Swedish Unesco Council's so-called Aspro Committee. Points of view from the first of these conferences have also been collected in a report (Bjerstedt & Rodhe, 1969); the second conference will be reported on later.

II. CREATIVITY

Main Aims

To construct, adapt, and try out some tests for the measurement of creativity;

to study the relation between these tests and variations in age, intelligence, and personality;

to study some teacher and student behaviors that can potentially influence creativity;

to construct examples of potentially creativity-promoting student exercises; and

to study certain effects of these.

Background

The goal descriptions in the Swedish curriculum stress the role of the school in developing personality. The students should be encouraged and trained to make their own combinations, to draw their own conclusions, to design and create, to experiment and make discoveries, to suggest and plan work and to judge the results of their work objectively - these are just some of the goals set up. Thus the goals deemed essential for the development of the students include education in independence, flexibility, problem-sensitivity and innovative thinking. The broad technical terms autonomy and creativity cover most of the essential ingredients referred to here.

At present there is a considerable risk that these important parts of the school's objectives will remain mere verbal gloss and not penetrate to a sufficient degree the practical planning of education, nor be included as an essential component when different types of educational experiments are being evaluated.

One of the reasons for this is probably the fact that measurement techniques within the autonomy and creativity fields are still relatively under-developed (not least compared to techniques for measuring knowledge and convergent intelligence). In addition, the general directions on method, in the curricula and available material on training study technique give the individual teacher very little guidance in these questions. There is a risk that some teachers tend to see tendencies to autonomy primarily as disciplinary problems and creativity sometimes as a lack of interest and inattentiveness in school work. Valuable expressions of autonomy and creativity are then more likely to be suppressed than encouraged. A teacher of this kind can in injudicious zeal come to obstruct important sections of the school's objectives (by creating a climate hostile to creativity, etc.).

Unfortunately, research in this area has long been sadly neglected, not only in Sweden but also in the international field. During more recent years, however, there has been a marked increase in activity, not least in the USA, where special research institutes have been established and a scientific periodical exclusively concentrating on "creative behavior" started. This project has therefore been able to link up with creativity research in other countries.

Realization

Since creativity as a field of work is not only a relatively virgin area, but also obviously presents many difficult problems, one should naturally not expect that a series of previously determined research operations will easily lead to definite results and final products. What the project can aspire to do is no more than to contribute to augmenting our knowledge within the goal areas mentioned, leaving the field a little bit better structured for the next research-and-development team that in their turn will carry the work another series of steps further. - The present project involves the following sub-tasks:

(1) Construction and trying out of some group tests for the measurement of creativity in school children. Various studies on scoring techniques will be included.

(2) Application of the main tests at the same time as batteries of personality tests and cognitive tests in order to get a better idea of the relational fertility of the main variables.

(3) Explorative studies using questionnaires and observations to study some teacher and student behaviors as potential influences on creativity.

(4) Working out sample student exercises designed to promote the development of creative behavior tendencies.

(5) Testing some effects of these.

So far the work has focused on points 1-4.

Examples of Sections of the Work

Literature Analysis. A preliminary analysis of empirical studies during recent years shows that the problems primarily taken up have concerned the connection between creativity, intelligence, and personality characteristics. Investigations directly relevant to educational planning in school have been conducted to a much lesser degree.

A Student Study. A first collection of data was carried out on about 450 students from grades 4, 6 and 8 in Malmö. The primary purpose was partly (1) to try out some creativity and autonomy tests (including both newly-constructed material and material adapted to Swedish), partly (2) to explore particular variable relationships (testing some preliminary hypotheses on the connection between creativity, autonomy and cognitive flexibility). In addition, the collected material should also provide a certain amount of information on (3) developmental trends of creative behavior, and on (4) possible personality correlates to low-creativity and high-creativity

respectively on the one side and low-autonomy and high-autonomy respectively on the other.

The investigation was arranged in such a way that creativity tests and an intelligence test were given to all three age groups (grades 4, 6 and 8), while the more comprehensive study (containing, in addition to creativity and intelligence tests, autonomy tests, general personality tests, verbal tests and tests on cognitive flexibility) was only conducted in grade 8.

A list of the tests can perhaps give some idea of the variables we have been interested in: (1) verbal creativity test, Torrance; (2) Non-verbal creativity test, Torrance; (3) Different ways of completing sentences; (4) Lies; (5) Intelligence test (Cattell 2B); (6) Hidden figures; (7) Sorting; (8) Coding; (9) Similarities; (10) Word fluency; (11) Swedish language; (12) Personality test I (HSPQ:B); (13) Personality test II (MNT); (14) Autonomy test: Personal opinions, Version C; (15) Sociometric choice situation (with some questions related to autonomy); (16) Teacher ratings of independence. -

The treatment of collected data, including factor analysis, will be written up in a separate report. A Swedish manual for the main tests with instructions for scoring etc. is also being prepared.

Collection of Expert Opinions. In order to find out what school experts (school leaders, further education consultants, tutors, methodics lecturers etc.) understand by the concept "creative ability" and what they think about the steps that should be taken at school to promote creative behavior, a questionnaire was drawn up and has been answered by about 300 people. - A second questionnaire was then produced in order to follow up some of the points of view that emerged. This was focused on educational methodics and study material for encouraging creativity and was answered by about 350 people. In order to find out how teachers react to creative manifestations, about 200 teachers have been given a special test in which they had to make decision on a number of specific classroom situations. The results of these three studies have been written up and reported (Eriksson, 1970).

An Observation Study. Observation studies have been made of classroom interaction in 23 classes in grades 4-6. One of the main purpose of these studies has been to try out an observation schedule, comprising

categories which can be assumed to be related to creative teaching. Two observers have throughout assessed the same classroom situations. Analyses of dimensions are in progress. At the same time, test data were collected on the students involved in the study, partly in order to examine possible connections between observed interaction and the students ´creative status. One can also at the same time get a preliminary mapping of the actual occurrence of the dimensions included in the schedule.

Constructing and Trying Out Material. During the spring term of 1971 the project members have devoted much of their time to construction work and other preparations for a try-out study which is planned to take place in the beginning of the autumn term this year. Many earlier attempts to promote creativity by means of particular training materials have not at all had the exercises linked up with the current work or study of the persons concerned, and the exercises have often been applied during a very brief period. Perhaps these may be some of the reasons why results have often been unsatisfactory. Is it possible to work our creativity-promoting exercises closely related to and integrated with the regular instruction according to the school plans? If so, how are such exercises experienced by students and teachers? Can measurable effects be observed using objective tests? These were some of the starting questions of the project, and against this background a plan was drawn up, according to which potentially creativity-promoting exercises were to be worked out for use in the three main school subjects Swedish, mathematics and "general subjects" (used here as a broad term to cover the integrated study of geography, history etc. in the middle stage of the comprehensive school). It was decided to orient the material and the try-out study towards grade 5; the students are here considered to be sufficiently versed in reading and writing to be able to take part in an advanced testing program and at the same time probably still relatively open to influence as far as creativity is concerned.

As constructors of exercises six interested teachers were recruited: two for each of the three school subject areas. The exercises were constructed individually or in pair work and then examined and discussed by a larger group. Preliminary try-outs with small groups of students were added.

The investigations will consist of: a battery of pre-tests at the start of the autumn term, a period of instruction including the exercises deve-

loped, and then a post-instruction test battery. Some classes will have "creativity" exercises in all three school subjects, others will have them only in one subject; in addition, a number of control classes will only get the tests. The test batteries are planned to include general creativity tests, subject-related creativity tests, knowledge tests (including items for the "higher" levels of the Bloom taxonomy), and certain more general cognitive and personality-related instruments. Some new constructions of tests have been developed and pre-tested for this purpose.

The project members do not judge it as very probable that a first attempt of this kind in so virgin and difficult a field as the present problem area will result immediately in an optimal material with notable effects in desired directions. However, what we hope to obtain is a number of empirical data and detailed points of view from teachers and students, which should mean a considerably better ground for recommendations on method and for continued developmental work within this field. In addition, a certain prototype material might be available after revisions.

Information. Recent project surveys are available in German and Swedish (Bjerstedt, 1971 b, 1971 c). Project reports will usually be published in the departmental series, "Pedagogisk-psykologiska problem" (cf Eriksson, 1970). During the autumn term 1970, the project leader arranged a doctorate course on the theme, "Creativity and control in the research process". Some of the material produced by guest lecturers and course members will be issued as a separate report (Bjerstedt, 1971 a).

III. STUDENT DEMOCRACY - CO-PLANNING AT DIFFERENT EDUCATIONAL LEVELS

Main Aims

To map out some characteristic patterns of interaction, attitudes and opinions related to the existing forms of student participation at various levels of education;

to study the connection between attitudes and opinions on the one hand and certain background and individual variables on the other;

to examine some features of the innovation process, when new procedures for co-planning are introduced;

to try, on basis of surveys and innovation studies, to put together some recommendations for continued development.

Background

The Malmö Department and the project leader have earlier been occupied with problems concerning the ability to be independent and the ability to co-operate as well as the personality characteristics and the educational experiences of importance in these connections. The present project represents a continuation along this line of interest, with emphasis on certain current school problems.

It has often been pointed out that one of the reasons for disciplinary trouble at a school can be shortcomings in the school's working methods, not least the fact that the students are not given sufficient opportunity to feel that they have a functional role in the acitivity of the school, but only as an exception take part in decisions and planning. Starting with specific conditions within the school world, therefore, it has been emphasized how important it is that the school should give the students the chance to participate in planning.

In the long run, however, the students' adjustment to the school world is naturally less important than the adjustment of the individual to the world outside the school, and similar lines of reasoning often recur here. One of the more important goals of the school should be to train the students as far as possible to function in a democratic society - responsibly, independently and with the will to co-operate. Many people think that the schools have neglected this aspect of education and that we cannot expect the students to demonstrate independence, a willingness to co-operate, and a feeling of responsibility if we do not give them the chance to acquire these qualities through direct training.

These problems are not new, but certain external circumstances have brought them more to the fore in recent years. The Swedish teachers' strike, which suddenly hurled the students into a situation which made great demands on their ability to assume responsibility and plan, showed both that the students could sometimes act with surprising maturity and - naturally - that many felt at a loss and found in difficult to take any initiative. One possible interpretation of the episode is that we here have a potential reserve of ability, of which we have made little use. Another external factor is also worth mentioning here. The student unrest in universities in different parts of the world has naturally had varying and complex causes. A common feature of many of the incidents seems, however, to have been that the students have felt excluded from the established process of decision-making, with no possibility of effectively participating in planning and in deciding on priorities.

There is a certain amount of agreement that both schools and colleges must make an attempt to change their systems, so that the individual student is given more opportunity for co-planning (whether one then wants to call this a hitherto unmet demand for justice or a neglected aspect of training). On the other hand, there is great uncertainty about how this activity can best be tackled. We know too little about what actually happens, about how different experiments are experienced by those participating (both teachers and students) and about how we should best continue. So what is first needed here are mapping studies and analysis.

Realization

We started by making an inventory of problems and listing a series of preliminary questions (see e.g. Bjerstedt, 1969 a). The work of the project was divided into three sections. One part deals with school democracy in the first six years of the comprehensive shool (Section I: grades 1-6); another part takes up corresponding questions in the last three years of the comprehensive school and in the "gymnasium" (Section II: grades 7-12); while the third part studies problems concerning student democracy in post-school educational establishments, with particular emphasis on the teacher-training scetor (Section III: above grade 12). Three research assistants have been in charge of the three sections.

The work has mainly dealt with questions within goal areas 1 and 2 (see the introductory description of aims), but a couple of innovation studies have also been included (goal area 3). Goal area 4, finally, has so far been involved primarily in the work on Section III.

Interpretation of the Concept "School Democracy" at Different School Levels

Expressions such as "school democracy" or "student democracy", as used in general discussions, are often both vague and emotionally charged. The emotions vary from strongly positive to strongly negative; but in addition to this comes the fact that many of those who have a generally positive attitude feel uncertain if asked to define more closely what is meant by these terms, and often prove to have very different ideas about what should be included in the concepts. One aspect which seemed of interest for the project was the way in which school leaders interpreted the expression school democracy and their attitude to student participation in the making of decisions: as key persons in the school system, school

leaders will presumably have an important part to play when it comes to putting the ideology of school democracy into practice. Therefore the project has used conference questionnaires and postal questionnaires to explore the attitude of school leaders to student participation. Among the questions taken up in the questionnaire were: (1) which areas are suitable for co-operation; (2) forms for this co-operation; (3) at which school levels these forms can be applied; (4) representation in the "students' council" and "co-operation committee" and the rights of decision these bodies are to have. A more detailed account of the investigation and its results are to be found in a separate report (Idman, 1970 c).

Studies in the First Six Years of the Comprehensive School

At present there are almost no formal and general rules for student influence at the lower school levels in Sweden. In practice, however, the students have a certain amount of influence even at these levels, depending on the interest shown by teachers and school leaders in the matter.

In order to illuminate problems connected with student influence on these school levels, a questionnaire was constructed, which was answered by (1) a general group of teachers and head-masters as well as (2) some special groups: (a) a selection of student-teachers, (b) teachers working at a demonstration and experimental school (connected with a School of Education), and (c) teachers at Eira School in Stockholm (a school with special emphasis on experimentation in the area of democratic co-planning). While the first group would give us a picture of current opinions and attitudes in general, the special groups might give us some ideas of future developments.

The questionnaire can be divided into two sections. The first part deals with questions concerning the present influence of various categories of persons both at school and in the classroom, together with the ideal division of influence. In addition, there are questions intended to give information about the values of the person answering. The second part of the questionnaire is designed to give a picture of the teacher's actual behavior in a series of concrete situations (chosen with the help of a preliminary study). In this part, the teacher is also asked to state whether in his opinion student decisions in these questions would have any negative consequences.

In some parts of the material, the teachers' statements about their actual behavior are compared with the students' reports. The attitudes

and opinions of the student-teachers are compared to certain individual data (e. g. data from personality tests).

Among the questions being dealt with at present are those of the following type:(a) To what extent is it possible to trace systematic differences between various groups (e. g. between groups which can a priori be thought to hold different positions on a general progressivity continuum)? (b) To what extent is it possible to find, independently of group differences, common features in the attitude to various situations (so that some are considered more easily hadled than others from the point of view of democratic decisions)? (c) What are the characteristics of the teachers´and students´social perception? - The answers to question (b) among other things can, perhaps, result in recommendations concerning suitable training sequences.

A local initiative taken by SECO (Swedish Students´Central Organization) in extending the activity of student councils to the lowest school grades has also been studied. This activity was only guided in the initial phase, after which the activities of the student council have been followed up without interference. This material includes questionnaire data from teachers and pupils and interviews with representatives for the student council.

Studies in Grades 7-9 and the "gymnasium"

In Section II, a mapping survey has been carried out of the interplay between on the one hand students and on the other student-representatives in student councils, subject conferences and co-operation committees. Among the questions on which the study has focused are: (1) How does the interplay between students and student-representatives in various committees and conferences function? (2) What attitudes do the students have to their representatives? (3) What do the students think are the most urgent changes needed in student representation and each body´s sphere of authority? - In addition to questions concerning attitudes and opinions, the study also included a test on the students´actual knowledge of the co-ordination bodies at the individual school, and a sociometric test. Since it is reasonable to assume that student councils can have different status, functions and responsibilities at a school which has grade 9 as its highest grade than it has at a school with a "gymnasium", different types of schools have been included in the study. The treatment concentrates mainly, however, on common trends in the answers and on co-variation between different types of questions.

A special study has been carried out, parallel to the mapping studies, at Källängs School in Malmö. This school has since the autumn term 1968 been experimenting with both increased student representation in existing committees and the establishment of new contact bodies between teachers and students. In its first phase our study is of a desriptive-explorative nature, but in the second phase, the project has had the opportunity of working in a more experimental way (and of including comparison data from another school).

Two experimental groups have been selected within the framework of the second phase of the Källängs study. Both are included in the school´s experiments, and one is in addition given special "instruction in democracy". This instruction mainly involved discussions in connection with problems taken up in a radio course ("School for democracy") and in a book ("Why democracy?" by Alf Ross.) - In connection with the study at Källängs School, an newly-constructed attitude. device is also being tested, which is intended to give a certain amount of information about student attitudes to democracy in both school and society. The items have either "open" or "concealed" democratic associations; in the sense that "open" items contain loaded signal words such as "democracy", "dictatorship" etc. (Can it be so that a person who only pays lip-service to democratic ideas tends to answer more open and less open questions differently?)

During a Swedish labour conflict in the spring term of 1971, including lock-out of teachers, the project conducted an opinion study among students at "gymnasium" schools in Malmö. The students involved were partly a number of those studied earlier by the project (so that certain comparisons could be made), and partly a wider selection.

Studies at the Post-"Gymnasial" Level

At the post-"gymnasial" level, the project´s main interest has been in studies of the situation in the teacher-training sector, which should indirectly and in the long run also be of importance for the development at schools. We have been able to combine certain parts of the basic work of the project with a special investigation made at the request of the National Board of Education.

This work included summarizing reports sent in by teacher-training institutions to the Board of Education concerning (1) the actual situation

in schools as to co-operation between different groups and (2) suggestions for increased co-operation (Almhed & Räikkönen, 1969). The assignment also included (a) treatment and writing up of some data from a questionnaire sent to teachers and student-teachers at teacher-training institutions in Spring, 1969, (b) content analysis of protocols from two central bodies at the schools of education, the President's Committee and the Teachers' Council; on this basis suggestions were also to be made concerning the arrangement of possible future experimentation. The investigation assignment was reported to the Board of Education during the autumn term of1969; a summary of this report was later published in our departmental series of publications. Among the facts produced by the material was: (a) that requests are often made for increased representation of student-teachers and other personnel on committees and councils and for increased powers of action and decision for these bodies; (b) that students' knowledge of the decision-structure at their own schools is often deficient; (c) that those who know most about their school's decision-structure are at the same time often those who want to change it most (see further Idman, 1970 a).

During recent terms new forms of co-operation between those active in the schools have been tried within many sectors of the Swedish educational system. So far, however, the schools of education have been excepted from more general experiments. Local initiative has, however, lead to minor experiments at some schools. An example of this is the experiment underway at the Department of Education at Malmö, where the director has delegated his decision-making functions to a committee (consisting of representatives of teachers, research-workers, other staff, and students). In connection with this experiment preliminary attempts at evaluation have been carried out with the help of (a) questionnaires to employees and students and (b) content analyses of tape-recordings from committee meetings (see further Idman, 1970 b).

Recently a comprehensive report from the project's questionnaire studies on teachers and students at teacher-training institutions has been finished (Idman, 1971). Among the questions treated here are (1) the position of the students' governing bodies, (b) experienced and desired cooperative relationships in general, (c) knowledge of and attitudes towards some new bodies for planning and cooperation introduced in 1968. In addition, various methodological problems of questionnaire studies are discussed and some aspects analyzed on the basis of the empirical data available. (In order to study the relationships between

attitudes and opinions on the one hand and certain personality characteristics on the other special studies have been carried out which will be reported separately.)

One general result from these questionnaire studies was that a considerable number of the student-teachers were not satisfied with their influence on decisions made in the schools. The author of the report makes these comments: "Not satisfied with their influence on their own training situation and without training in 'democratic working techniques', the teachers in spe do not seem to be given the best prospects possible to be able to reach those objectives that the basic school curricula include, for example, those involving the development of 'school democracy'." Against this background it seems to be both natural and important that further experimentation with new forms for co-planning within the teacher-training institutions is introduced; an experimentation with considerably more radical changes of procedures than those so far suggested.

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Abstract card

Bjerstedt, Å. Cooperation, independence, mental agility: Some aspects of preparedness for the future as an educational objective. Educational and Psychological Interactions (Malmö, Sweden: School of Education), No. 36, 1971.

Most people agree that schools should equip students for the future, not only through a given mass of knowledge. For example, students should be prepared to cooperate productively, to take a stand with critical independence, and to develop a mental agility capable of meeting new problems creatively. Rather little is known of how best to realize such goals, and our opportunities for objectively measuring how far these objectives are reached are minimal. Research on selected aspects of this problem area is underway at the Malmö School of Education; some projects associated with it are presented briefly in this report.

Indexed:
1. Social training; cooperation; independence
2. Democratic co-planning in schools
3. Creativity

Reference card

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